

Introduction and Vision

Greensboro, the neighboring towns, and Guilford County are in a time of change. The area's population has grown significantly over the last decade and will continue to grow in the years ahead. Economic growth is also expected over the long term as the area economy diversifies and the restructuring of key traditional industries continues. Growth offers positive opportunities, but also creates a range of challenges for the area, including the development of a transportation system that will meet community and regional needs. At the same time, community priorities regarding transportation and its relationship to broader community objectives have evolved in recent years, as reflected in a wide range of recent community plans and initiatives.

The Greensboro Urban Area Metropolitan Planning Organization (MPO) has developed the 2030 Transportation Plan to be responsive to the challenges of growth and economic change as well as the community's evolving priorities. A reexamination of existing plans to better assess the affects of major planned transportation investments was also a key consideration. These investments include the Greensboro Urban Loop, the J. Douglas Galyon Depot and other GTA service enhancements, the City of Greensboro's aggressive sidewalk construction program, and proposed regional rapid transit services.

The planning process has sought to integrate with local and regional planning initiatives to consider community vision, local corridor context, and environmental goals. Emphasis has been placed on innovative community involvement, inter-governmental partnerships including with newly incorporated towns in the planning area, and a multi-disciplinary approach. A greater emphasis has also been placed on the role of local transportation networks, planned land use, and identified natural, historic, and economic resources.

The plan has been developed in accordance with the federal requirements for MPO Long Range Transportation Plans and air quality conformity analyses. The MPO has worked diligently to satisfy federal requirements, but has complemented this work with a focus on addressing meeting broader community needs and priorities. As such, the 2030 Long Range Transportation Plan has gone beyond previous transportation plans in the level of technical analysis, community outreach and involvement, and intergovernmental collaboration involved in its preparation.

The Vision —

“To develop and maintain a safe, efficient, and environmentally compatible transportation system that provides convenient choices for accessing destinations throughout the Greensboro Metropolitan Area and the Triad, including well-integrated, connected public transportation, pedestrian, and bicycle networks.”

Plan Scope

The 2030 Transportation Plan (LRTP) addresses all surface transportation modes, including highways, rails, transit, bicycles, and pedestrians, as well as the connection to aviation. Key elements include:

- Identification of future roadway, public transportation, bicycle and pedestrian facility, and rail improvement needs
- An updated thoroughfare plan and a draft collector street plan
- Refined investment strategies in light of anticipated future resource availability and limitations
- Identification of transportation investments requiring further study or new revenue sources
- Transportation policy findings and recommendations
- Supporting financial analysis and a demonstration of conformity to air quality requirements
- Maps and summaries of public involvement and technical analysis

Study Area

The MPO, an intergovernmental planning group, led the transportation plan efforts. The MPO is designed to address the complexity of transportation interests and impacts of area-wide transportation planning, and its intergovernmental arrangement worked quite well for the development of a transportation plan for this study area.

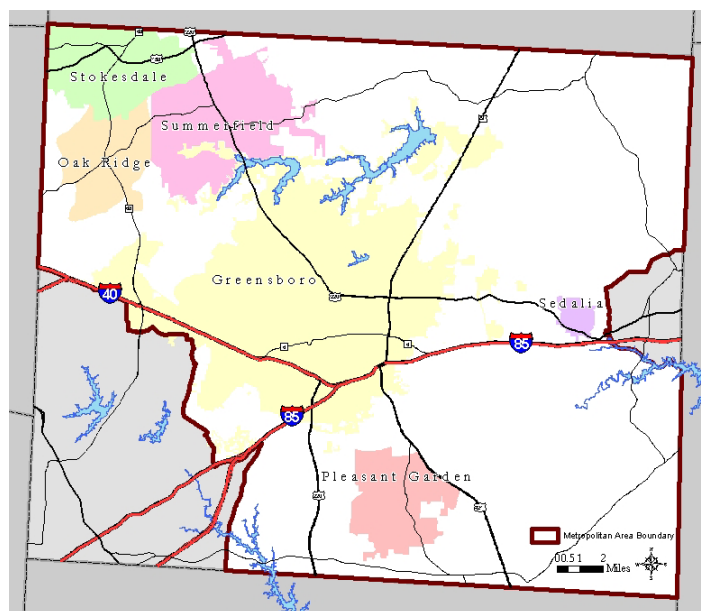
This transportation plan addresses the area within the Metropolitan Area Boundary (MAB) which includes the City of Greensboro, area towns, and much of Guilford County (shown in **Map 1.1**). The metropolitan area includes 612 square miles and a population of approximately 316,000. The timeframe for the plan runs through the year 2030.

Coordination with Other Plans

Special consideration was given to the various community plans and major studies to better integrate the 2030 Transportation Plan. These include:

- Mobility Greensboro (GTA Long Range Public Transportation Plan)
- Greensboro Connections 2025 Comprehensive Plan
- Guilford County and Area Town land use plans
- MPO Congestion management system
- PART rail study
- Airport area plans
- Technical analysis

Map 1.1 — Planning Area



Special consideration was given to area Land Use and Comprehensive

Technical Committee

In order to effectively address the special considerations noted above as well as other key local concerns, a Technical Committee was formed (members of this committee are identified in the Acknowledgements section). The Technical Committee met monthly, and held additional sessions to address specific development topics, including collector street plans and thoroughfare plans.

Each Technical Committee monthly meeting covered specific topics, ranging from updating the long-range planning process, to involvement at public information meetings, to developing goals and objectives, to alternatives analysis. The group identified key issues and assessed public input, providing insight into the analysis of this information. The Technical Committee also identified ways to integrate into the LRTP the findings of relevant plans such as Connections 2025 and Mobility Greensboro.

Public Involvement

The LRTP Update has been built around an extensive public outreach program. This included three rounds of public involvement activities. All public comments received, along with the results of the numerous public meetings are compiled and summarized in **Appendix B** of this document. A complete record of these public comments and opinions is also available in both summary and complete form at www.greensboro-nc.gov/lrtp or by calling 373-GDOT.

Round 1 Public Involvement

The first round of public involvement began with a kickoff meeting at the historic J. Douglas Galyon Depot in downtown Greensboro. Four workshops followed. More than 170 people participated in sessions held in downtown Greensboro, east Greensboro, Northwest Guilford County, and Pleasant Garden. These meetings provided information on the planning effort, and included several means of public input featuring facilitated small group discussions on transportation needs and priorities for the area.

The first round of public involvement also included a statistically valid phone survey of more than 1,200 residents from throughout the planning area. Interviews with City, County, and area Town leaders rounded out the effort.

This information was compiled and made available along with summary information on the Transportation Plan website. After closely studying these findings, the project team identified a wide variety of views. In spite of this, several key themes emerged. These included a broad base of support for:

- The development of sidewalks and other pedestrian facilities
- Improved local and regional public transportation services
- A focus on quality maintenance of roadways and other infrastructure
- A focus on improved traffic operations, including installation of turn lanes and coordinated traffic signal systems
- Strategic roadway widenings and extensions primarily to address bottlenecks, safety issues, and system connection needs
- The development of connected bicycle facility and trail systems
- Enhanced street connectivity
- Efforts to preserve and enhance community character

Round 2 Public Involvement

The second round of public involvement included four public workshops as well as interviews with local elected officials and the Triad Transportation Association. Held at Greensboro City Hall, Summerfield Elementary School, Pleasant Garden Elementary School, and Madison Elementary School (in McLeansville), the workshops built on the information received in the first round of public involvement. Eighty-one people participated in these sessions.

Workshops began with a review of display materials, an extensive presentation on plan issues and questions, and ended with facilitated break-out group discussions. During this round, participants responded to a series of detailed questions regarding future transportation needs, policy issues, concerns and preferences, and specific transportation projects and local issues.

Round two results affirmed the key themes identified in the Round one, and confirmed that a balanced transportation investment plan clearly reflects community preferences.

Round 3 Public Involvement

The third round of public involvement involved four public workshops held at Greensboro City Hall, Summerfield Elementary School, Pleasant Garden Elementary School, and Bessemer Elementary School (in Greensboro). The workshops built on the information received in the first and second rounds of public involvement, including discussion of key elements of the draft plan such as proposed future transportation projects and investment strategies, an updated Thoroughfare Plan, and a draft

Collector Street Plan. Seventy-seven people participated in these sessions.

The workshops included a detailed presentation of the proposed plan and its components. Workshop participants were given the opportunity to review plan materials in detail, and to discuss questions and concerns with MPO staff. Comments were recorded through written comment forms with space for open ended comments as well as questions about various plan elements. Discussion included local and project related concerns. Written comments were generally supportive of the various plan elements.

Final Public Meeting and Document Review Period

The public review period on the proposed plan document began on July 12, 2004 and concluded on August 11, 2004. The proposed plan document was available along with the Air Quality Conformity Analysis Report on the MPO website as well as in printed form at area libraries and government offices. Instructions for making public comments were included, and these noted the availability of various supporting materials on the LRTP website, including documentation of earlier rounds of public involvement and the Congestion Management System report.

A final public involvement meeting was held on July 29th from 6:00pm to 7:30pm in the Greensboro City Council Chambers. A presentation provided an overview of the plan document, and a range of plan materials were displayed for public review and comment. Input was gathered through general comment forms. Comments received during the document review period are documented along with MPO responses and background material as an excerpt of *Appendix B: Public Involvement Results & Public Comments*, available on the LRTP website.

Analysis

The project team used a range of analysis tools to assess existing and future conditions and choices, including the Piedmont Triad Regional Travel Demand Model. One element of this work was an analysis of existing and near term roadway system deficiencies and the identification of traffic operational strategies that can be used at specific locations to maximize existing roadway capacity prior to or instead of widening (the Congestion Management System). Other elements included a study of what could be expected to occur by the year 2030 under three divergent future transportation investment scenarios. These investment scenarios, accompanied by maps and other explanatory material, were presented for discussion during the second round of public workshops in February 2004. This analysis work is described in detail in Chapter 3 and included:

- Regional Travel Demand Modeling
- Review and revision to the thoroughfare plan
- Assessment of existing conditions
- Congestion Management System
- Environmental screening

Three Scenarios

The first scenario evaluated the performance of Existing plus Committed (E+C) projects. These projects have funding or other public commitments, and are assumed to be the basic building blocks of the final LRTP.

The second scenario evaluated a Highway Focus. This scenario built on the E+C by adding substantial additional highway improvements targeted to areas where significant future congestion is expected. In contrast, public transportation and pedestrian and bicycle accommodations were held to the E+C level. This scenario illustrated that an exclusive focus on new roadway capacity will not be enough to meet future needs, and that some potential widening needs may not be feasible.

The third scenario evaluated an Alternative Focus. This scenario assumed a major expansion of local public transportation, implementation of regional rapid transit, improved local street connectivity, technology improvements, as well as expanded bicycle and pedestrian accommodations. No major expansion of roadway capacity beyond the E+C was assumed. This scenario demonstrated that an exclusive focus on transportation alternatives would not be enough to meet the full range of area transportation needs.

These scenarios helped to illustrate the transportation challenges and opportunities facing the Greensboro area in the years ahead. None of them offered a complete strategy for meeting area needs, and yet each had a story to tell about where the area may be headed, and how a range of choices may affect future outcomes. Review and discussion of the implications of these scenarios was a key part of the second round of public workshops, and helped to clarify the need for a balanced scenario for the 2030 Transportation Plan, as well as specific local and facility issues.

Financial Plan

In accordance with federal transportation regulations, the LRTP must be fiscally constrained. In other words, the plan must demonstrate that the transportation projects indicated in the plan can be implemented based on reasonable future-year funding expectations. This includes the use of traditional public and private funding mechanisms such as taxes, bonds, and the

Transportation Improvement Program as well as other potential revenue resources.

The purpose of a financial plan is in part to ensure that adequate funding exists to support the future transportation needs of the area and to inventory any potential shortfalls. More information about the financial element of the plan can be found in Chapter 12 of this report.

Conformity Analysis

The Greensboro MPO, NCDOT Transportation Planning Branch, and North Carolina Department of Environment and Natural Resources (DENR) Air Quality Division have been working cooperatively on the air quality conformity analysis for the transportation plan. The purpose of this analysis is to verify compliance with the provisions of the Clean Air Act Amendments of 1990 and the Transportation Equity Act for the 21st Century. It also is intended to confirm that the fiscally constrained LRTP eliminates or reduces violations of the National Ambient Air Quality Standards (NAAQS) in Guilford County.

The assessment of the LRTP was completed in June 2004, determining that the plan accomplishes the intent of the North Carolina State Implementation Plan (SIP). A copy of the conformity report can be found in **Appendix A**.

Seven Planning Factors

The Transportation Equity Act for the 21st Century (TEA-21) requires all MPOs to consider seven broad planning factors in the development of the transportation plans and programs. These seven factors are listed below:

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency
- Increase the safety and security of the transportation system for motorized and non-motorized users
- Increase the accessibility and mobility options available to people and for freight
- Protect and enhance the environment, promote energy conservation, and improve the overall quality of life
- Enhance the integration and connectivity of the transportation system for people and freight
- Promote efficient systems management and operations
- Emphasize the preservation of the existing transportation system

These seven planning factors played a significant role in the development of the 2030 Transportation Plan. They influenced the development of each of the Plan's elements.

When considering the *economic vitality* of the area it became apparent that the Plan needed to provide improved access to underdeveloped areas where land use plans have targeted growth or redevelopment. The Plan also consistently seeks to improve *safety and security* for all modes. This was primarily accomplished through design recommendations, transit amenities, and provisions that promote a defined pedestrian and bicycle realm as a part of the transportation system. The movement of *freight* was another significant consideration, especially when identifying future highway needs and developing strategies intended to improve access to the airport where the future Fed-Ex terminal is planned. Transportation *connectivity* also played a significant role as the planning process considered ways to improve the integration and transition between modes. The plan is focused on improving system-wide connectivity and even goes beyond federal requirements by including a draft collector street plan for the entire study area. The Congestion Management System and Management strategies noted in the plan seek to maximize the *efficiency and operations* of transportation corridors as well as of the entire system, primarily through the use of technology and travel demand management strategies.

Finally, *preservation* of the existing transportation system could be considered the cornerstone of the plan. The use of technology, land use strategies, and access management tools combine to prolong the performance of the system, thereby lessening the need for extensive expansions to the planned system. The addition of the collector street plan serves as further evidence of the plan's commitment to preserving the current system by improving mobility throughout the study area, thereby reducing reliance on arterials and reducing impacts to critical transportation nodes.

Key Findings

The Greensboro Urban Area is in a time of change. Future population and economic growth are expected, as is continuing economic restructuring and diversification. Major transportation investments such as the Urban Loop and the Depot and the pace and direction of growth and development will change future traffic patterns in ways that can not yet be fully anticipated. The transportation planning environment is therefore a dynamic one.

The 2030 Transportation Plan document represents a kind of snapshot, a representation of transportation needs, priorities, and resources as they are currently understood. As time passes transportation system conditions will change, as will the understanding of the area's needs, priorities, and resources. Future transportation plan updates will reflect these changes, but they will also build off of the public involvement, the technical analysis, and the intergovernmental coordination of the 2030 Transportation Plan effort.

The Result: A Transportation Planning Guide

The Greensboro Urban Area 2030 Transportation Plan is intended to serve as a tool for guiding the implementation of the future transportation system in the area. Much additional work remains to be done to implement most of the plan's recommended strategies – but the plan can serve as a guidepost along the way.. This document summarizes the planning process and details for each of the plan's various elements including:

- Existing Roadway and Highway Conditions (Chapter 2)
- Future Roadway and Highway Conditions (Chapter 3)
- Environmental Screening (Chapter 4)
- Thoroughfare and Collector Street Planning (Chapter 5)
- Bicycle and Pedestrian Element (Chapter 6)
- Transit Element (Chapter 7)
- Freight Element (Chapter 8)
- Aviation Element (Chapter 9)
- Management Strategies (Chapter 10)
- Planning Assumptions and Air Quality Conformity (Chapter 11)
- Financial Plan (Chapter 12)
- Action Plan (Chapter 13)

Each chapter includes background information regarding the element as well as a set of summary recommendations at the end. The final chapter concludes with the Action Plan that communicates next steps and roles and responsibilities for implementation. The adoption resolution and air quality conformity finding are enclosed under Appendix C.

